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RAW SEQUENCE LISTING  
PATENT APPLICATION: US/09/915,873

DATE: 08/06/2001  
TIME: 15:34:23

Input Set : A:\Seqlist.txt  
Output Set: N:\CRF3\08062001\I915873.raw

4 <110> APPLICANT: Stomp, Anne-Marie  
 5 Dickey, Lynn  
 6 Gasdaska, John  
 9 <120> TITLE OF INVENTION: Expression of Biologically Active  
 10 Polypeptides in Duckweed  
 12 <130> FILE REFERENCE: 40989/237225  
 C--> 14 <140> CURRENT APPLICATION NUMBER: US/09/915,873  
 C--> 14 <141> CURRENT FILING DATE: 2001-07-26  
 14 <150> PRIOR APPLICATION NUMBER: US 60/293,330  
 15 <151> PRIOR FILING DATE: 2001-05-23  
 17 <150> PRIOR APPLICATION NUMBER: US 60/221,705  
 18 <151> PRIOR FILING DATE: 2000-07-31  
 20 <160> NUMBER OF SEQ ID NOS: 8  
 22 <170> SOFTWARE: FastSEQ for Windows Version 4.0  
 24 <210> SEQ ID NO: 1  
 25 <211> LENGTH: 554  
 26 <212> TYPE: DNA  
 27 <213> ORGANISM: Zea mays  
 29 <400> SEQUENCE: 1  
 30 gatcaagtgc aaaggccgc cttgtttctc ctctgtctct ttagtctgact aatctgggtt 60  
 31 tatgattcggt tgtagtaattt tggggaaagc ttccgtccaca gttttttttt cgatgaacag 120  
 32 tgcgcgcgtg ggcgtgtatct tttatgtatcat cctgcataatcg tggtaactt atgtctttta 180  
 33 ttcgccttcac taccatgaaa agactagtaa tctttctcgat tgtaacatcg tccagcactg 240  
 34 ctattaccgt gtggccatc cgacagtctg gctgaacaca tcatacgata ttgagcaaag 300  
 35 atctatcttc cctgtttttt aatgaaagac gtcatttca tcagttatgtat ctaagaatgt 360  
 36 tgcacttgc aaggaggcgat ttctttttt gaatttaact aactcggttga gtggccctgt 420  
 37 ttctcgacgat taaggccctt gctgtccac acatgtccat tcgaattttt ccgtgttttag 480  
 38 caaggccgaa aagtttgcattt cttgtatgatt tagcttgact atgcgattgc ttccctggac 540  
 39 ccgtgcagct gcggg 554  
 41 <210> SEQ ID NO: 2  
 42 <211> LENGTH: 498  
 43 <212> TYPE: DNA  
 44 <213> ORGANISM: Artificial Sequence /  
 46 <220> FEATURE:  
 47 <223> OTHER INFORMATION: Duckweed codon optimized nucleotide sequence  
 48 encoding human alpha-2B interferon  
 50 <221> NAME/KEY: CDS  
 51 <222> LOCATION: (1)...(498)  
 53 <400> SEQUENCE: 2  
 54 tgc gac ctc ccc cag acc cac agc ctc ggg tcc cgc cgc acc ctc atg 48  
 55 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Ser Arg Arg Thr Leu Met  
 56 1 5 10 15  
 58 ctg ctg gcg cag atg cgc cgc atc tcg ctc ttc agc tgc ctg aag gac 96  
 59 Leu Leu Ala Gln Met Arg Arg Ile Ser Leu Phe Ser Cys Leu Lys Asp  
 60 20 25 30  
 62 cgc cac gac ttc ggc ttc ccg cag gag gag ttc ggc aac cag ttc cag 144  
 63 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Gly Asn Gln Phe Gln

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64	35	40	45	
66	aag gcc gag acg atc ccc gtg ctc cac gag atg atc cag cag atc ttc			192
67	Lys Ala Glu Thr Ile Pro Val Leu His Glu Met Ile Gln Gln Ile Phe			
68	50	55	60	
70	aac ctg ttc agc acc aag gac agc tcg gcc tgg gac gag acc ctg			240
71	Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr Leu			
72	65	70	75	80
74	ctc gac aag ttc tac acc gag ctg tac cag cag ctc aac gac ctg gag			288
75	Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu Glu			
76	85	90	95	
78	gcg tgc gtg atc cag ggg gtt ggg gtt acg gag acg ccg ctg atg aag			336
79	Ala Cys Val Ile Gln Gly Val Gly Val Thr Glu Thr Pro Leu Met Lys			
80	100	105	110	
82	gag gac agc atc ctc gcc gtg cgc aag tac ttc cag cgc atc acg ctc			384
83	Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr Leu			
84	115	120	125	
86	tac ctc aag gag aag aag tac agc ccg tgc gcc tgg gag gtc gtt cgc			432
87	Tyr Leu Lys Glu Lys Tyr Ser Pro Cys Ala Trp Glu Val Val Arg			
88	130	135	140	
90	gcc gag atc atg cgc tcc ttc agc ctg agc acc aac ctc cag gag agc			480
91	Ala Glu Ile Met Arg Ser Phe Ser Leu Ser Thr Asn Leu Gln Glu Ser			
92	145	150	155	160
94	ctc cgc tcc aag gag taa			498
95	Leu Arg Ser Lys Glu *			
96	165			
99	<210> SEQ ID NO: 3			
100	<211> LENGTH: 96			
101	<212> TYPE: DNA			
102	<213> ORGANISM: Oryza sativa			
104	<400> SEQUENCE: 3			
105	accatgcagg tcctgaacac gatggtaaac aagcaattcc tctccctgtc cgtcctcatc	60		
106	gtccttcctcg ggctgagcag caacctcacc gccggc		96	
108	<210> SEQ ID NO: 4			
109	<211> LENGTH: 188			
110	<212> TYPE: PRT			
111	<213> ORGANISM: Homo sapiens			
113	<400> SEQUENCE: 4			
114	Met Ala Leu Thr Phe Ala Leu Leu Val Ala Leu Leu Val Leu Ser Cys			
115	1	5	10	15
116	Lys Ser Ser Cys Ser Val Gly Cys Asp Leu Pro Gln Thr His Ser Leu			
117	20	25	30	
118	Gly Ser Arg Arg Thr Leu Met Leu Leu Ala Gln Met Arg Arg Ile Ser			
119	35	40	45	
120	Leu Phe Ser Cys Leu Lys Asp Arg His Asp Phe Gly Phe Pro Gln Glu			
121	50	55	60	
122	Glu Phe Gly Asn Gln Phe Gln Lys Ala Glu Thr Ile Pro Val Leu His			
123	65	70	75	80
124	Glu Met Ile Gln Gln Ile Phe Asn Leu Phe Ser Thr Lys Asp Ser Ser			
125	85	90	95	

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126 Ala Ala Trp Asp Glu Thr Leu Leu Asp Lys Phe Tyr Thr Glu Leu Tyr  
127 100 105 110  
128 Gln Gln Leu Asn Asp Leu Glu Ala Cys Val Ile Gln Gly Val Gly Val  
129 115 120 125  
130 Thr Glu Thr Pro Leu Met Lys Glu Asp Ser Ile Leu Ala Val Arg Lys  
131 130 135 140  
132 Tyr Phe Gln Arg Ile Thr Leu Tyr Leu Lys Glu Lys Lys Tyr Ser Pro  
133 145 150 155 160  
134 Cys Ala Trp Glu Val Val Arg Ala Glu Ile Met Arg Ser Phe Ser Leu  
135 165 170 175  
136 Ser Thr Asn Leu Gln Glu Ser Leu Arg Ser Lys Glu  
137 180 185  
140 <210> SEQ ID NO: 5  
141 <211> LENGTH: 165  
142 <212> TYPE: PRT  
143 <213> ORGANISM: Homo sapiens  
145 <400> SEQUENCE: 5  
146 Cys Asp Leu Pro Gln Thr His Ser Leu Gly Ser Arg Arg Thr Leu Met  
147 1 5 10 15  
148 Leu Leu Ala Gln Met Arg Arg Ile Ser Leu Phe Ser Cys Leu Lys Asp  
149 20 25 30  
150 Arg His Asp Phe Gly Phe Pro Gln Glu Glu Phe Gly Asn Gln Phe Gln  
151 35 40 45  
152 Lys Ala Glu Thr Ile Pro Val Leu His Glu Met Ile Gln Gln Ile Phe  
153 50 55 60  
154 Asn Leu Phe Ser Thr Lys Asp Ser Ser Ala Ala Trp Asp Glu Thr Leu  
155 65 70 75 80  
156 Leu Asp Lys Phe Tyr Thr Glu Leu Tyr Gln Gln Leu Asn Asp Leu Glu  
157 85 90 95  
158 Ala Cys Val Ile Gln Gly Val Gly Val Thr Glu Thr Pro Leu Met Lys  
159 100 105 110  
160 Glu Asp Ser Ile Leu Ala Val Arg Lys Tyr Phe Gln Arg Ile Thr Leu  
161 115 120 125  
162 Tyr Leu Lys Glu Lys Lys Tyr Ser Pro Cys Ala Trp Glu Val Val Arg  
163 130 135 140  
164 Ala Glu Ile Met Arg Ser Phe Ser Leu Ser Thr Asn Leu Gln Glu Ser  
165 145 150 155 160  
166 Leu Arg Ser Lys Glu  
167 165  
170 <210> SEQ ID NO: 6  
171 <211> LENGTH: 31  
172 <212> TYPE: PRT  
173 <213> ORGANISM: Oryza sativa  
175 <400> SEQUENCE: 6  
176 Met Gln Val Leu Asn Thr Met Val Asn Lys His Phe Leu Ser Leu Ser  
177 1 5 10 15  
178 Val Leu Ile Val Leu Leu Gly Leu Ser Ser Asn Leu Thr Ala Gly  
179 20 25 30  
182 <210> SEQ ID NO: 7

## RAW SEQUENCE LISTING

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183 <211> LENGTH: 31  
184 <212> TYPE: PRT  
185 <213> ORGANISM: Artificial Sequence  
187 <220> FEATURE:  
188 <223> OTHER INFORMATION: Modified rice alpha-amylase signal peptide  
190 <400> SEQUENCE: 7  
191 Met Gln Val Leu Asn Thr Met Val Asn Lys His Phe Leu Ser Leu Ser  
192 1 5 10 15  
193 Val Leu Ile Val Leu Thr Val Leu Ser Ser Asn Leu Thr Ala Gly  
194 20 25 30  
197 <210> SEQ ID NO: 8  
198 <211> LENGTH: 21  
199 <212> TYPE: PRT  
200 <213> ORGANISM: Arabidopsis thaliana  
202 <400> SEQUENCE: 8  
203 Met Lys Thr Asn Leu Phe Leu Phe Leu Ile Phe Ser Leu Leu Ser  
204 1 5 10 15  
205 Leu Ser Ser Ala Glu  
206 20

**VERIFICATION SUMMARY**

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Input Set : A:\Seqlist.txt

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L:14 M:270 C: Current Application Number differs, Replaced Current Application No

L:14 M:271 C: Current Filing Date differs, Replaced Current Filing Date